



CB Labs, Inc  
 Lic. # C8-17-0000006-TEMP  
 1615 Hill Rd 9  
 Novato, CA 94947  
 4154936605

Distributor: Johnny Apple CBD

Producer: Johnny Apple CBD

# Certificate of Analysis

Name: A

Batch: PASS

Matrix: Concentrates

ID: 5b89cf8a09cf2200145515a0

Date Received: 8/31/2018

Date Collected: 8/31/2018

Batch Number: R&D

Total Batch Size: R&D

Sample Increment: R&D

Total Sample Weight: R&D

## Cannabinoids

tested: 9/4/2018 HPLC-DAD

	mg/g	%
CBD	757.18	75.72
CBDA	< LOQ	< LOQ
CBG	< LOQ	< LOQ
CBN	< LOQ	< LOQ
THC	< LOQ	< LOQ
THCA	< LOQ	< LOQ
Total CBD	757.18	75.72
Total THC	< LOQ	< LOQ

LOQ (Limit of Quantitation) = 1.0 mg/g

mg/g = milligrams per gram

Total THC = THCA \* 0.877 + THC

Total CBD = CBDA \* 0.877 + CBD

d9THC = THC

d8THC = 8THC

method per SOP



## Residual Solvents

tested: 9/11/2018 GC-FID

	LOD	value	AL	result
(-) Isopulegol	1.25e+1	< LOQ	1.25e+1	PASS
(-)-alpha-Bisabolol	1.25e+2	< LOQ	1.25e+2	PASS
(-)-beta-Pinene	2.50e+1	< LOQ	2.50e+1	PASS
(-)-Guaiol	1.25e+1	< LOQ	1.25e+1	PASS
1,2-Dichloroethane	3.13e+1	< LOQ	3.13e+1	PASS
Acetone	3.90e+0	< LOQ	3.10e+3	PASS
Acetonitrile	7.80e+0	< LOQ	6.00e+0	PASS
alpha-Humulene	1.25e+2	< LOQ	1.25e+2	PASS
alpha-Pinene	2.50e+1	< LOQ	2.50e+1	PASS
alpha-Terpinene	2.50e+1	< LOQ	2.50e+1	PASS
Benzene	7.80e+0	< LOQ	7.80e+0	PASS
beta-Caryophyllene	2.50e+1	< LOQ	2.50e+1	PASS
beta-Myrcene	5.00e+0	< LOQ	5.00e+0	PASS
Butane	1.25e+2	< LOQ	5.00e+3	PASS
Camphene	2.50e+1	< LOQ	2.50e+1	PASS
Chloroform	5.00e+0	< LOQ	5.00e+0	PASS
d-Limonene	2.50e+1	< LOQ	2.50e+1	PASS
delta-3-carene	2.50e+1	< LOQ	2.50e+1	PASS
Ethanol	3.90e+0	< LOQ	5.00e+3	PASS
Ethyl Acetate	1.56e+1	< LOQ	5.00e+3	PASS
Ethyl Ether	5.00e+1	< LOQ	5.00e+3	PASS
Ethylene oxide	2.50e+1	< LOQ	2.50e+1	PASS
gamma-Terpinene	2.50e+1	< LOQ	2.50e+1	PASS
Geraniol	2.50e+1	< LOQ	2.50e+1	PASS
Heptane	7.80e+0	< LOQ	5.00e+3	PASS
Hexane	3.90e+0	< LOQ	7.00e+1	PASS
Isopropyl alcohol	7.80e+0	< LOQ	3.20e+2	PASS
Linalool	1.25e+1	< LOQ	1.25e+1	PASS
m/p/o Xylene	3.90e+0	< LOQ	1.00e+1	PASS
Methanol	3.90e+0	< LOQ	4.00e+2	PASS
Methylene chloride	3.13e+1	< LOQ	3.13e+1	PASS
Nerolidol	1.25e+1	< LOQ	1.25e+1	PASS
Ocimene	2.50e+1	< LOQ	2.50e+1	PASS
p-Cymene	2.50e+1	< LOQ	2.50e+1	PASS
Pentane	7.80e+0	< LOQ	5.00e+3	PASS
Propane	2.50e+1	< LOQ	5.00e+3	PASS
Terpinolene	2.50e+1	< LOQ	2.50e+1	PASS
Toluene	3.90e+0	< LOQ	3.00e+1	PASS
Trichloroethylene	3.13e+1	< LOQ	3.13e+1	PASS

LOD (Limit of Detection) = mcg/g

value = mcg/g

AL (action level) = mcg/g

mcg/g = micrograms per gram

ND = Not Detected

LOQ meets state requirements for 0.1 mcg/g



Residual Pesticides

tested: 9/5/2018 LC & GC MS/MS

	LOD	value	AL	result
Abamectin total	2.50e-5	ND	1.00e-1	PASS
Acephate	7.81e-4	ND	1.00e-1	PASS
Acequinocyl total	5.00e-5	ND	1.00e-1	PASS
Acetamiprid	6.25e-6	ND	1.00e-1	PASS
Aldicarb	1.25e-5	ND	1.25e-5	PASS
Azoxystrobin	1.25e-5	ND	1.00e-1	PASS
Bifenazate	1.25e-5	ND	1.00e-1	PASS
Bifenthrin	1.25e-5	ND	3.00e+0	PASS
Boscalid	1.25e-5	ND	1.00e-1	PASS
Captan	3.91e-4	ND	7.00e-1	PASS
Carbaryl	1.25e-5	ND	5.00e-1	PASS
Carbofuran	6.25e-6	ND	6.25e-6	PASS
Chlorantraniliprole	6.25e-6	ND	1.00e+1	PASS
Chlordane total	1.56e-3	ND	1.56e-3	PASS
Chlorfenapyr	9.77e-5	ND	9.77e-5	PASS
Chlorpyrifos	1.25e-5	ND	1.25e-5	PASS
Clofentezine	1.00e-4	ND	1.00e-1	PASS
Coumaphos	6.25e-6	ND	6.25e-6	PASS
Cyfluthrin - total	1.56e-3	ND	2.00e+0	PASS
Cypermethrin	2.50e-5	ND	1.00e+0	PASS
Daminozide	6.25e-6	ND	6.25e-6	PASS
Diazinon	1.25e-5	ND	1.00e-1	PASS
Dichlorvos	1.25e-5	ND	1.25e-5	PASS
Dimethoate	6.25e-6	ND	6.25e-6	PASS
Dimethomorphe	2.50e-4	ND	2.00e+0	PASS
Ethoprophos	1.25e-5	ND	1.25e-5	PASS
Etofenprox	6.25e-6	ND	6.25e-6	PASS
Etoxazole	2.50e-5	ND	1.00e-1	PASS
Fenhexamid	1.25e-5	ND	1.00e-1	PASS
Fenoxycarb	2.50e-5	ND	2.50e-5	PASS
Fenpyroximate	2.50e-5	ND	1.00e-1	PASS
Fipronil	1.25e-5	ND	1.25e-5	PASS
Flonicamid	2.50e-5	ND	1.00e-1	PASS
Fludioxonil	1.25e-5	ND	1.00e-1	PASS
Hexythiazox	1.25e-5	ND	1.00e-1	PASS
Imazalil	1.25e-5	ND	1.25e-5	PASS
Imidacloprid	1.25e-5	ND	5.00e+0	PASS
Kresoxim methyl	9.77e-5	ND	1.00e-1	PASS
Malathion	5.00e-5	ND	5.00e-1	PASS

	LOD	value	AL	result
Metalaxyl	6.25e-6	ND	2.00e+0	PASS
Methiocarb	2.50e-5	ND	2.50e-5	PASS
Methomyl	1.25e-5	ND	1.00e+0	PASS
Mevinphos	6.25e-6	ND	6.25e-6	PASS
Myclobutanil	1.25e-5	ND	1.00e-1	PASS
Naled	6.25e-6	ND	1.00e-1	PASS
Oxamyl	6.25e-6	ND	5.00e-1	PASS
Paclobutrazol	1.25e-5	ND	1.25e-5	PASS
Parathion-methyl	9.77e-5	ND	9.77e-5	PASS
Pentachloronitrobenzene	3.91e-4	ND	1.00e-1	PASS
Permethrin total	1.95e-4	ND	5.00e-1	PASS
Phosmet	1.00e-1	ND	1.00e-1	PASS
Piperonyl butoxide	6.25e-6	ND	3.00e+0	PASS
Prallethrin	6.25e-6	ND	1.00e-1	PASS
Propiconazole	2.50e-5	ND	1.00e-1	PASS
Propoxur	6.25e-6	ND	6.25e-6	PASS
Pyrethrin total	6.25e-6	ND	5.00e-1	PASS
Pyridaben	1.25e-5	ND	1.00e-1	PASS
Spinetoram total	6.25e-6	ND	1.00e-1	PASS
Spinosad total	1.25e-5	ND	1.00e-1	PASS
Spiromesifen	1.25e-5	ND	1.00e-1	PASS
Spirotetramat	1.25e-5	ND	1.00e-1	PASS
Spiroxamine	6.25e-6	ND	6.25e-6	PASS
Tebuconazole	6.25e-6	ND	1.00e-1	PASS
Thiacloprid	1.25e-5	ND	1.25e-5	PASS
Thiamethoxam	1.25e-5	ND	5.00e+0	PASS
Trifloxystrobin	6.25e-6	ND	1.00e-1	PASS

LOD (Limit of Detection) = mcg/g

value = mcg/g

AL (action level) = mcg/g

mcg/g = micrograms per gram

ND = Not Detected

LOQ meets state requirements for 0.1 mcg/g

Analytical Method: A novel comprehensive strategy for residual pesticide analysis in cannabis flower. Lilly Asanuma et. al.



Scientific Director, Clarence Gillett Ph. D.  
9/11/2018



verify at [cblabs.us](http://cblabs.us)

